JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0378 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2010	AJDXL03.0208	2.4, 3.0	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Direct [Cooler, S	Diesel Injection, Turbo C moke Puff Limiter, Elect	harger, Charge Air ronic Control Module	Loaders, Tractor, Pump, Compressor, Go Industrial Equipment	enerator Set, Other		

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	-		3.9	1.0	0.22	14	3	22

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this ______ day of December 2009.

Annette Hebert, Chief

Mobile Source Operations Division

Sette: 12/08/2009
Engine Model Summary Form

John Deere Power Systems

Engine category:

Nonroad Cl EPA Engine Family: AJDXL03.0208

Mfr Family Name: 250HBB

New Submission

Attachment 1 of 1 E0#; U-R-004_0378

24HF295D 4024H 60.35@2400 48.20@2400 24.92@2400 167.41@1800 55.6@1800 22.49@1800 EM EC SPL 24HF295C 4024H 65.72@2400 49.90@2400 26.92@2400 188.80@1800 61.2@1600 24.81@1800 EM EC SPL 24HF295B 4024H 61.02@2800 43.20@2800 27.21@2800 157.82@2000 52.8@2000 23.75@2000 EM EC SPL 24HLV11A 4024H 80.35@2400 48.20@2400 24.92@2400 157.41@1800 55.8@1800 22.49@1800 EM EC SPL 24HLV11B 4024H 65.72@2400 49.90@2400 26.92@2400 188.80@1800 81@1800 24.61@1800 EM EC SPL 30HF295B 5030H 73.90@2200 48.80@2200 30.21@2200 253.69@1850 86.4@1650 30.87@1650 EM EC SPL	ngine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@pesk torque	9.Emission Control Device Per SAE J1930
481P2350 402H 50.57g2400 48.9gg400 22.8gg2400 197.71gg1800 22.8gg1800 22.8gg1800 EM EC SPL 244P235C 4024H 51.0gg2800 49.2gg2400 77.21g_2500 157.8gg,2000 22.8gg1800 22.4gg1800 EM EC SPL 244P1418 4024H 69.57g2400 49.9gg2400 22.8gg2400 157.8gg,2000 EM EC SPL 244P14118 4024H 69.57g2400 49.9gg2400 22.8gg;2000 188.8gg1800 22.4gg1800 EM EC SPL 244P14118 4024H 65.7gg2800 49.9gg2400 22.8gg;2000 188.8gg1800 30.8gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 49.9gg2400 22.8gg;2000 187.41gg200 59.9gg1800 22.4gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 45.9gg2800 23.8gg;2000 187.41gg200 59.9gg180 30.8gg1800 23.9gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 45.9gg2800 23.8gg2800 187.41gg200 59.9gg180 32.2gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 45.9gg2800 23.8gg2800 187.41gg200 59.5gg180 23.7gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 49.9gg2800 27.4gg2800 189.8gg1800 23.7gg1800 23.7gg1800 EM EC SPL 244P15118 4024H 65.7gg2800 49.9gg2800 27.4gg2800 189.8gg1800 23.7gg1800 24.7gg180 EM EC SPL 244P15118 4024H 65.7gg2800 49.9gg2800 27.4gg2800 189.8gg1800 24.7gg180 EM EC SPL 244P15118 4024H 65.7gg2800 59.9gg2800 27.4gg2800 69.8gg2800 27.4gg2800 69.8gg2800 27.4gg2800 EM EC SPL 244P1514 59.9gg1800 24.7gg1800 EM EC SPL 244P1514 59.7gg1800 EM EC SPL 244P1514 59.7gg1	24HF295A	4024H	65.72@2800	44.70@2800	28.18@2800	167.41@2000	54.9@2000	24.70@2000	EM EC SPL
24HF2898 4004H 91.0262200 49.002400 157.8262000 25.9262000 27.9662000 24.0661000 58.061000 24.0661000 58.0610000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.0610000 58.061000 58.061000 58.061000 58.061000 58.061000 58.0610000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 58.061000 5	24HF295D	4024H	60.35@2400	46.20@2400	24.92@2400	167.41@1800	55.6@1800	22.49@1800	EM EC SPL
24H.V116	24HF295C	4024H	65.72@2400	49.90@2400	26.92@2400	188.80@1800	61.2@1800	24.81@1800	EM EC SPL
24H-V11B 4024H 85.72@2800 45.00@2800 23.07@2800 25.00@2800 55.00@2800 24.70@2800 EME CSPL 24HF287 4024H 85.72@2800 45.50@2800 28.86@2800 167.41@2800 55.000 24.70@2800 EME CSPL 24HF011A 4024H 95.72@2800 45.50@2800 25.73@2800 167.41@2800 55.000 24.70@2800 EME CSPL 24HF011B 4024H 95.72@2800 45.50@2800 25.73@2800 167.41@2800 55.000 24.70@2800 EME CSPL 24HF011B 4024H 95.72@2800 45.80@2800 25.73@2800 167.41@2800 55.000 24.70@2800 EME CSPL 24HF011B 4024H 95.72@2800 180.0000 167.41@2800 55.0000 24.70@2800 EME CSPL 25.0000 167.41@2800 55.0000 167.41@2800 25.0000 24.70@2800 EME CSPL 25.0000 167.41@2800 25.0000 167.41@2800 25.0000 24.70@2800 EME CSPL 25.0000 24.70@2800 167.41@2800 25.0000 25.0000 24.70@2800 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.70@1800 25.0000 25.0000 25.0000 25.0000 25.0000 25.0000 25.0000 25.0000 25.00000 25.0000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.00000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.000000 25.0000000 25.000000 25.0000000 25.0000000 25.0000000 25.0000000 25.00000000 25.0000000 25.0000000000	24HF295B	4024H	61.02@2800	43.20@2800	27.21@2800	157.82@2000	52.8@2000	23.75@2000	EM EC SPL
30HF2988	24HLV11A	4024H	60.35@2400	48.20@2400	24.92@2400	167.41@1800	55.6@1800	22.49@1800	EM EC SPL
124HF287 4024H 85.72@2800 45.50@2800 28.53@2800 187.14@2000 55.02000 24.70@2000 MEC SPL 24HT0118 4024H 65.72@2800 46.00@2800 27.45@2800 186.22@1800 65.5@1800 23.75@1850 MEC SPL 28HT0118 4024H 55.72@2800 38.20@2800 30.87@2800 188.20@1800 65.5@1800 27.75@2800 MEC SPL 28DHT014 5030H 73.73@2800 38.20@2800 30.87@2800 188.80@2800 48.6@2500 27.746@2550 MEC SPL 28DHT014 5030H 73.73@2800 38.20@2800 30.87@2800 188.80@2800 48.6@2550 27.746@2550 MEC SPL 28DHT014 5030H 73.73@2800 38.20@2800 58.73@2800 188.80@2800 48.6@2550 27.746@2550 MEC SPL 38DHT014 5030H 73.73@2800 38.20@2800 58.73@2800 58.80@2800 48.6@2550 27.746@2550 MEC SPL 38DHT014 5030H 73.73@2800 58.20@2800 58.73@2800 58.80@2800 48.6@2550 27.746@2550 MEC SPL 38DHT014 5030H 73.73@2800 58.20@2800 58.80@28	24HLV11B		The second secon	Annual Color and a feel and a feel of the feel of the feel		The second secon			
24HT0118 4024H 91.8962600 144.0062800 25.7362600 151.5161650 24.7561950 EM EC SPL 24HT0118 4024H 91.5762600 39.2062600 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800 188.8062050 48.562050 27.9462050 EM EC SPL 330HT014 8030H 73.7562600 39.2062800 30.8762800	30HF295B				30.21@2200				
24/T011B 4024H 95.72(2000) 45.90(2000) 27.45(2000) 199.82(201950) 95.5(201950) 24.75(201950) EM EC SPL 20017014 5030H 73.76(2000) 36.20(2000) 20.87(2000) 188.80(2000) 27.44(2000) 27.44(2000) EM EC SPL 20017014 2000 2000 2000 2000 2000 2000 2000 2	024HF297				The state of the state of the state of		and the second s		
30.87@2800 188.80@2050 48.86@2050 27.94@2050 EM.EC.SPL									
		The second secon						The state of the s	
	030HT014	5030H	73.75@2800	39.20@2800	30.87@2800	188.80@2050	48.5@2050	27.94@2050	EM EC SPL
		er le para diziona di V	latings view statement			action of the second	Contractor 4 of	rt a love eige ra	
	3 1.3		CONTRACTS ON		W. 小豆包含含含的肉类	Washington (1994)			<u> Egyatia kilikila.</u>
	27 × 7 × 23	An An and Mindelson (et a	Goardandarstra	Samples Market Street		Carlo Value de la coltación de		วาม ใส่เก็ตเรียกสายของ	Zarodin'i Yanini a 1
		A STATE OF THE STA		"Carborate Transcon	and a finite field to the first of		1911	2. 在中的一种中国的一种	
			grafia Asimi e esta :	5- 4-02- 5-08-0-5-7-4-0-5-0	Open vien starre vitus vitus i			9	305654000 1000000000000000000000000000000000
				Carrier and Carrier Manager Control	fight about the fight, with resu	na China na mara ana ana ana	<u>ंदर्भक्ष, पेच धन प्रेय</u>	The second sections of the second	ydda Alfan all fall farfal
			THE WALL WIT COME TO SERVICE			1000 MARINE AND THE RES	ogleticani orbitali	MANUEL ENGLISHED AND A	William . William Th
		of the factor of the factor of the		at every days a very	eres, ordere berief. (f.	Sparkers to the specific of the second	The second secon	Table 14 Villa Co	
		7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Marian Sara						
					1. 44 A. 1874		11. No. 11. 12. 12. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14		
		0.4403+4 05.467#544	Water Mary 2018 2018		WE SERVE WORKS	5 (2000) S (400) S (400)	100 miles (100 miles)	· 题。在 4000000 · 10 \$ \$ \$ \$	5 #P9400 # 54 W.C.
		N. T. Att.	and the same of the same	The state of the second	#809220 *****				
			ne property in the second	en e	State Mark No. 18 April 1980 C. R.	2. 8 To 1/2 (24 County St. 1/2	86.50 BUT NOTE		38.97.23.37 h Londo
		CENTRAL CANCELLARIA	TO NOT COLUMN TO A STATE OF THE	Set Term All De l'Effer Servi	7-08-82-92-92-92-82-	12 0 1000 1000 1000 1000	2011,815,840,810 to 41 st	With the Control of the Control	7. 2.7.1.28.1.7.1.24.1.7.
	70.000		ales establicados de la compa	**************************************		a - North and Constitution of the	2011 NESSENG 121 W 18	Assaulta Argunia de La Careca	Terrigo (g. 1858) en 19. septim de
	7	And have been properly to the	CATHOLOGY YEAR AND A CAN	to the factories of the second second second second	F. Autoritéen & 15-15-A. N. H.	a de la companya del companya de la companya del companya de la co	N. 3490, 25 (25) 15(2)	· 医克克克斯 · · · · · · · · · · · · · · · · · ·	and the second second
	1 1 1 1 1 1 1 1 1 1	an is his parentes (in		CERTAIN STANDARD		500 At 16 74 454 A	ASSECT SOLVE	W. 1-1-10 (1983) F. 11-40	
	. (41)		<u>- arabananakar.</u>		Sec. 1. 18 1 - 6 12 1 4 1 1 1 1 1 1 1 1 1		and the second second	AND THE PERSON OF THE PERSON OF THE PERSON	3 9 C. C. S. A. 148 C.
	. (-)	To A section of the Section	of the second	15,830,630,65,95		GANGERAGE ELLES"	1345 - Views 1890	Section in the section of the section is	42 A.S. 11 11 11 11 11 11 11 11 11 11 11 11 11
		77030000000000000000000000000000000000	D.A	Research Control (1997)		A Company of the Comp		<u> Parking Austrian in The V</u>	CR PRESENT LIVE STATE
		2000000			VW 78.3356 ##	WARE OF THE SECOND	ar Direk Jan Swi	Missis made at the	4. Av 29. AVII. 144
		* 100 00 A 10 00 A 10 A 10 A 10 A 10 A 1		CONTRACTOR OF STREET		r an amendadara a		egnergy properties and a	An one her state that all all a
		CONTRACTOR OF STATE	Extend the America	Carrier Switz Carrier	474. SW 284. ZW			entral services	1.45.249 A. 2.4.25
		5 (2) SERVINGS, (8)	30 (30 pm pp	STOREGOE DE LONGE DO LA LABORIA.		100 W. M. W.	* 12 ACKS VESTINGS - 10	A TOWNS NAMED AND ADDRESS.	Marie Lineau Charles A.
			TYESTY VE SELLE		N. VII. SERVILLAN		SEAS AND THE RESERVE	الوالم المنازي المنازية المناز	
					<u> </u>	2 (1 m) 2 (1		<u> </u>	
		a salagat yang k	Transfer of the	e servana a ka	are a restant for all a		27. P.M. Va. S. K.		A STATE OF THE STATE OF
		1-1 14,41,	Add the state of the	<u> </u>	Post State 1	4 - 1 Miles (11) - 4 (1) - 1	<u> </u>		
		14. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	or and war to lead	Street with the state of the	PROGRAM PROC		granton artina	Carly Carly State (1975)	
			Salar Salas Salas				1 1 187 1 1 1 1 1 1 1 1 1 1 1	******	* * * * * * * * * * * * * * * * * * * *
		17 (124/71)	W 1.7F43.9357777	kned HAV Jakk at 1910		1 15 (Albert Lord)	ALITERAÇÃO DE LA		A STATE OF THE STATE
		egil i tigK stilvedel ja	Marie Contract Contract	(1,64) = 4 - 646 (16 - 6) = 1 (14)	-15 10 55; + 15 10 10 10 10 10 10 10 10 10 10 10 10 10	en e l'architecture de la contraction de		1884 KM (1) 1 48 W	and the second of the second
	2.1		h (again sa 1977) di dina dan jarin sa sa sa s		TERRITOR STREET	Color Control of the Color	The responding to the	4.75/23 (1.50) 14.800 (1	Charles and the second
					<u> </u>	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	<u> </u>		<u> 18 19 a a Milhilair</u>
			1 907 C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	to the state of the state of the	distant distant		And the second second		
					T 1 4 4 5 1 5 5 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
			Company to						
			the first first the	, Farely or jet yet from	<u> </u>		<u> i seine , , , , , , , , , , , , , , , , , , ,</u>	n in de pessi	
			1						
		<u>- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1</u>					11. 5. 1.4. 2		
	. :			<u> </u>			San, a		
			top of the	the state of the s		1.00			
									